## INTERNATIONAL ... ARCH REPORT

International application No.
PCT/JP03/08405

A. CLASSIFICATION OF SUBJECT MATTER Int.Cl <sup>7</sup> H01L27/105, H01L43/02				
	o International Patent Classification (IPC) or to both na	tional classification and IPC		
1	S SEARCHED			
Minimum d	ocumentation searched (classification system followed	by classification symbols)		
Int.	Cl <sup>7</sup> H01L27/105, H01L43/02			
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	ion searched other than minimum documentation to the			
		Jitsuyo Shinan Toroku Koho Toroku Jitsuyo Shinan Koho		
NOKAL	Jitsuyo Shinan Koho 1971-2003	Toroku ortsuyo simian konc	1994-2003	
Electronic d	ata base consulted during the international search (nam	e of data base and, where practicable, sea	rch terms used)	
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C. DOCU	MENTS CONSIDERED TO BE RELEVANT			
Category*	Citation of document, with indication, where ap		Relevant to claim No.	
X Y	US 5902690 A (MOTOROLA, INC.	),	1	
1 ·	11 May, 1999 (11.05.99), Full text; all drawings		2-5	
	& JP 11-238377 A		•	
	Full text; all drawings			
	& DE 19807361 A1			
	110 0000 (0050 000 nd	.m	2	
Y	US 2002/0050632 A1 (MARK TUT 02 May, 2002 (02.05.02),	TLE),	2	
	Full text; all drawings			
	(Family: none)			
			,	
Y	JP 2002-158486 A (The Resear		3	
	Electric and Magnetic Materia	ais),		
	31 May, 2002 (31.05.02), Full text; all drawings		·	
	(Family: none)			
	,			
Further documents are listed in the continuation of Box C. See patent family annex.				
* Special categories of cited documents: "T" later document published after the international filing date or				
"A" document defining the general state of the art which is not priority date and not in conflict with the application but cited to considered to be of particular relevance understand the principle or theory underlying the invention "E" earlier document but published on or after the international filing "X" document of particular relevance; the claimed invention cannot			lerlying the invention	
date		considered novel or cannot be considered step when the document is taken alone		
cited to	cited to establish the publication date of another citation or other "Y" document of particular relevance; the claimed invention cannot be			
	special reason (as specified) considered to involve an inventive step when the document is			
means combination being obvious to a person skilled in the art				
"P" document published prior to the international filing date but later "&" document member of the same patent family than the priority date claimed				
Date of the actual completion of the international search  Date of mailing of the international search report				
10 September, 2003 (10.09.03) 24 September, 2003 (24.09.03)				
	Name and mailing address of the ISA/ Authorized officer			
Jana	nese Patent Office	1		

## INTER-ATIONAL SEARCH REPORT

International application No.

PCT/JP03/08405

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 11-176149 A (Victor Company Of Japan, Ltd.), 02 July, 1999 (02.07.99), Full text; all drawings (Family: none)	
E, X	JP 2003-249630 A (Toshiba Corp.), 05 September, 2003 (05.09.03), Full text; all drawings (Family: none)	1,3-5
P,X	JP 2003-115578 A (Canon Inc.), 18 April, 2003 (18.04.03), Full text; all drawings (Family: none)	1,2,4
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